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FIG. 1

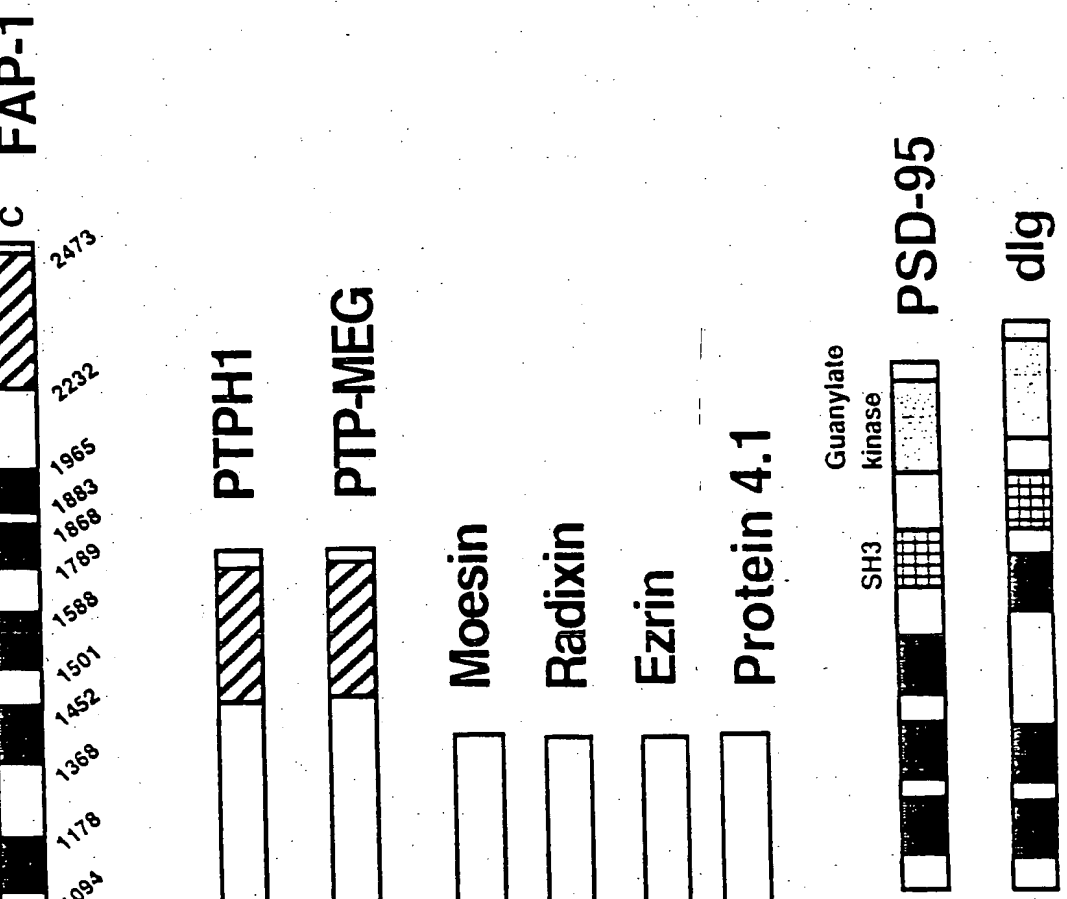

FAP-1
N
C
GLGF1
Leucine Zipper
Membrane Binding Site
GLGF2
GLGF3
GLGF4
GLGF5
GLGF6
Catalytic Domain
38
121
473
501
571
881
1094
1178
1368
1452
1501
1588
1789
1868
1883
1965
2232
2473
PTPH1
PTP-MEG
Moesin
Radixin
Ezrin
Protein 4.1
SH3
Guanylate kinase
PSD-95
dlg

FIG. 2A

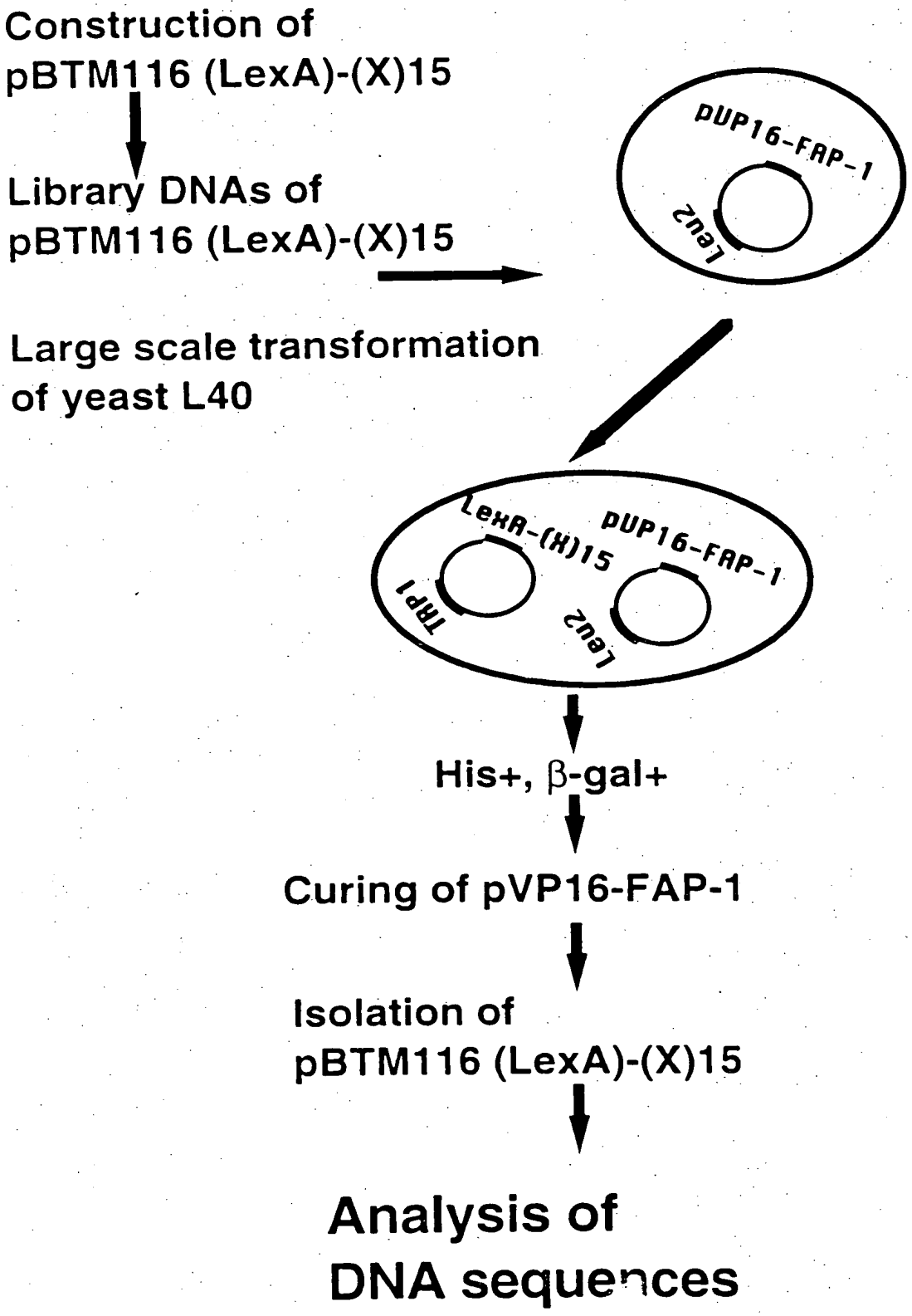

Construction of
pBTM116 (LexA)-(X)15
Library DNAs of
pBTM116 (LexA)-(X)15
pVP16-FAP-1
Leu2
Large scale transformation
of yeast L40
LexA-(X)15
TRP1
pVP16-FAP-1
Leu2
His+, β-gal+
Curing of pVP16-FAP-1
Isolation of
pBTM116 (LexA)-(X)15
Analysis of
DNA sequences

FIG. 2B

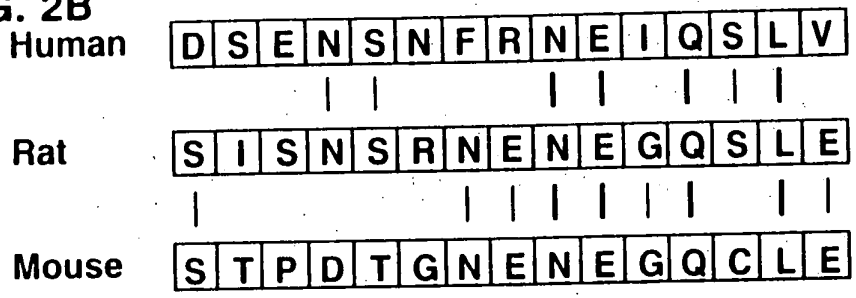


FIG. 2C

- - - N S - - - N E - Q S L -

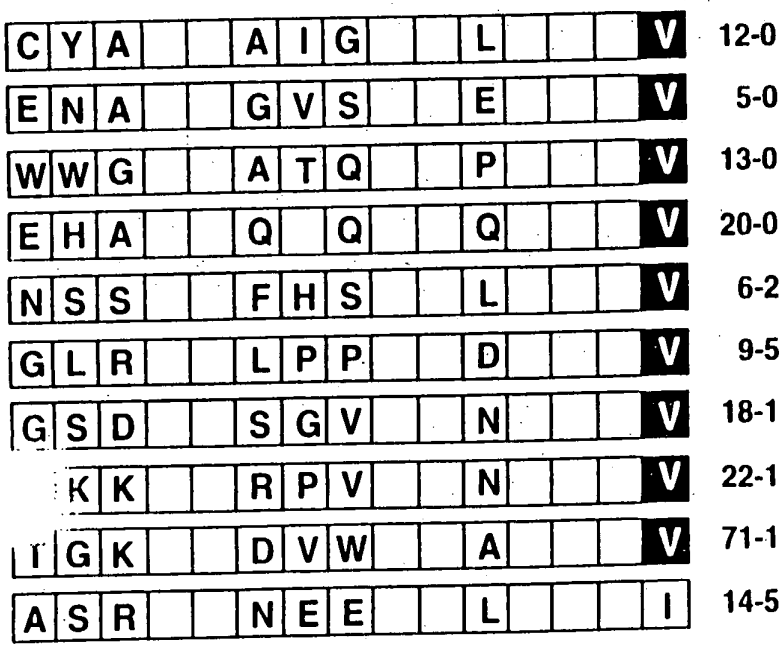
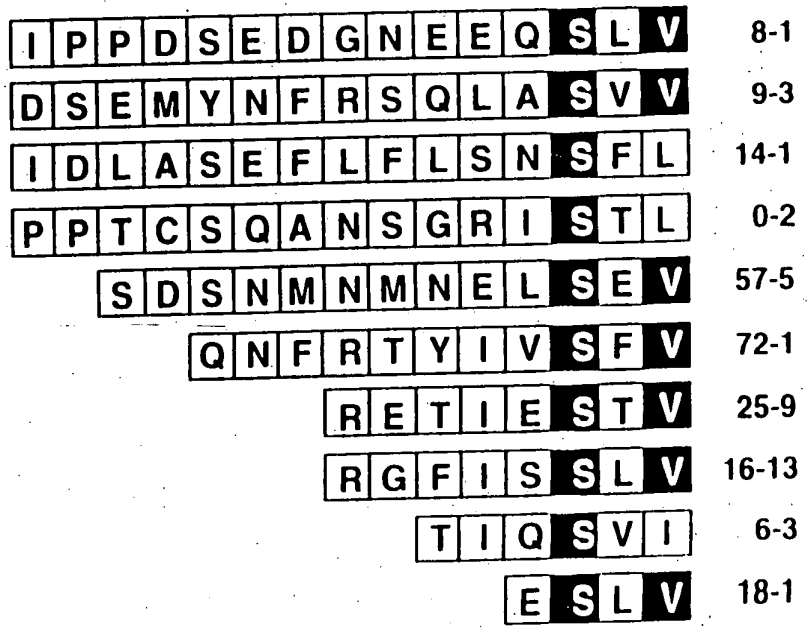


FIG. 2D



Consensus: *t* S-X-V/L/I

FIG. 3A

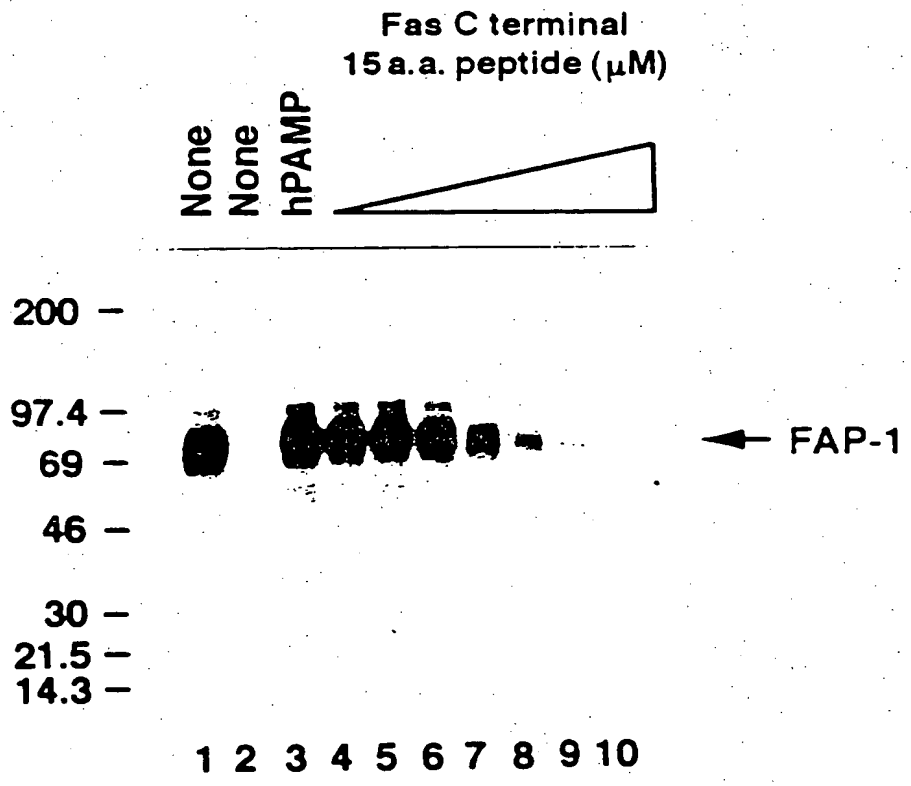

Fas C terminal
15 a.a. peptide (μM)
None
None
hPAMP
200 –
97.4 –
69 –
46 –
30 –
21.5 –
14.3 –
FAP-1
1 2 3 4 5 6 7 8 9 10

FIG. 3B

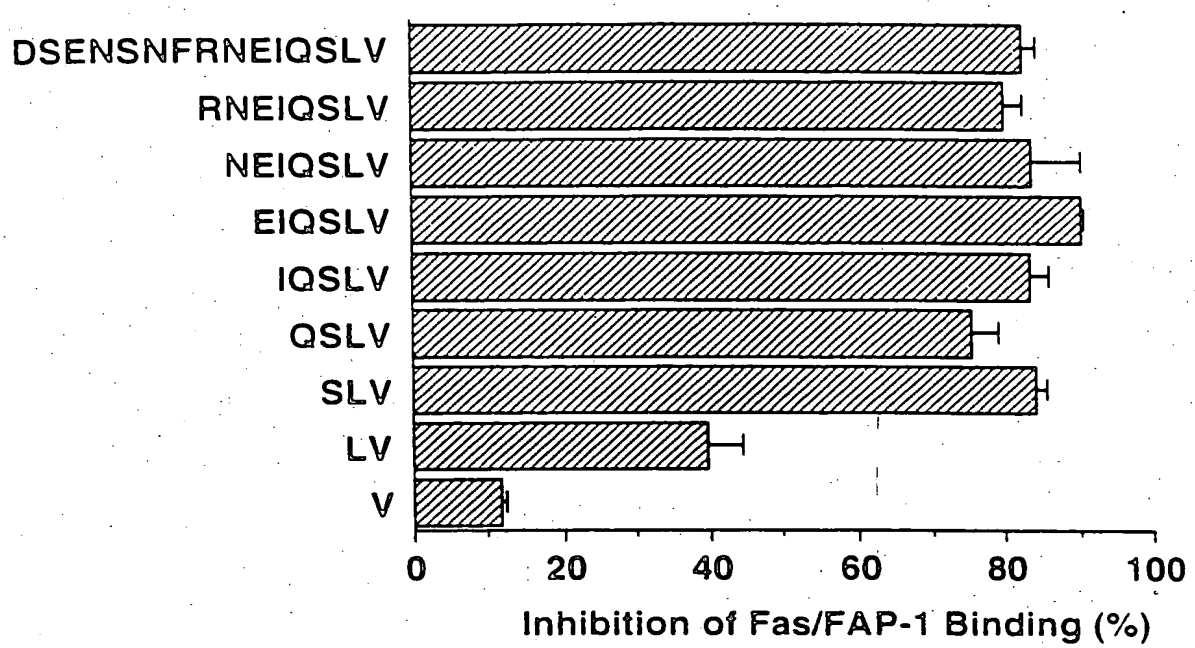

DSENSNFRNEIQSLV
RNEIQSLV
NEIQSLV
EIQSLV
IQSLV
QSLV
SLV
LV
V
0
20
40
60
80
100
Inhibition of Fas/FAP-1 Binding (%)

FIG. 3C

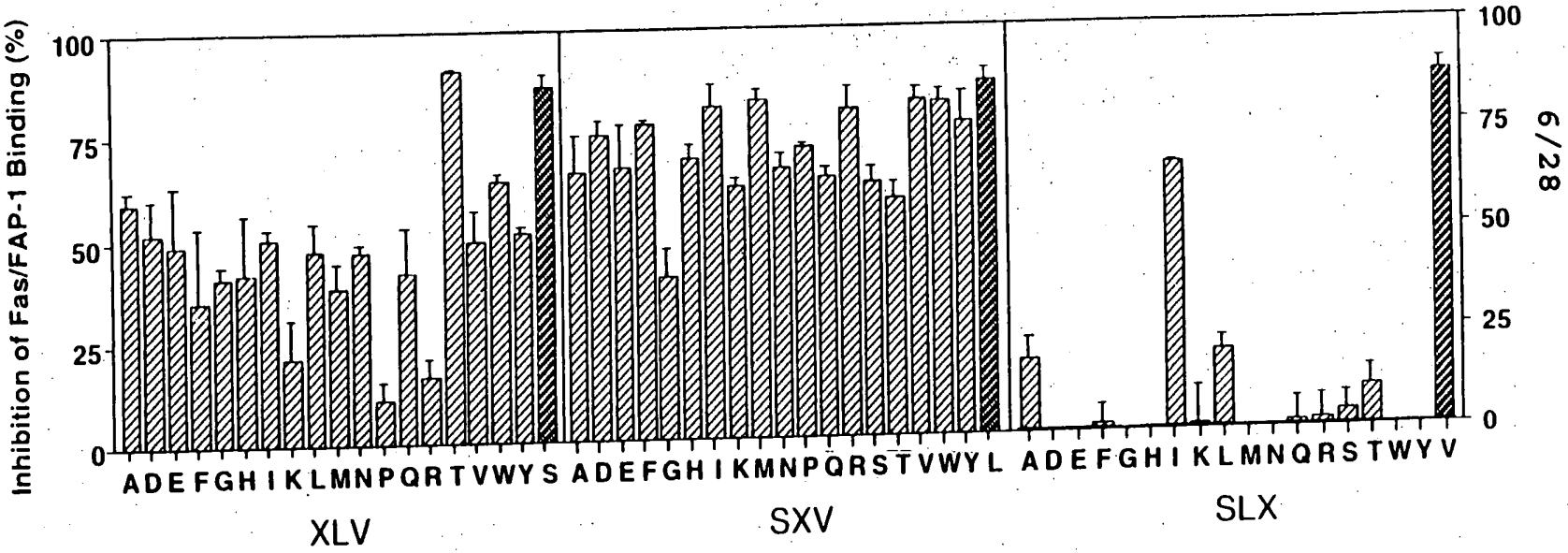

Inhibition of Fas/FAP-1 Binding (%)
100
75
50
25
0
A D E F G H I K L M N P Q R T V W Y S A D E F G H I K M N P Q R S T V W Y L A D E F G H I K L M N Q R S T W Y V
XLV
SXV
SLX
6/28

FIG. 4A

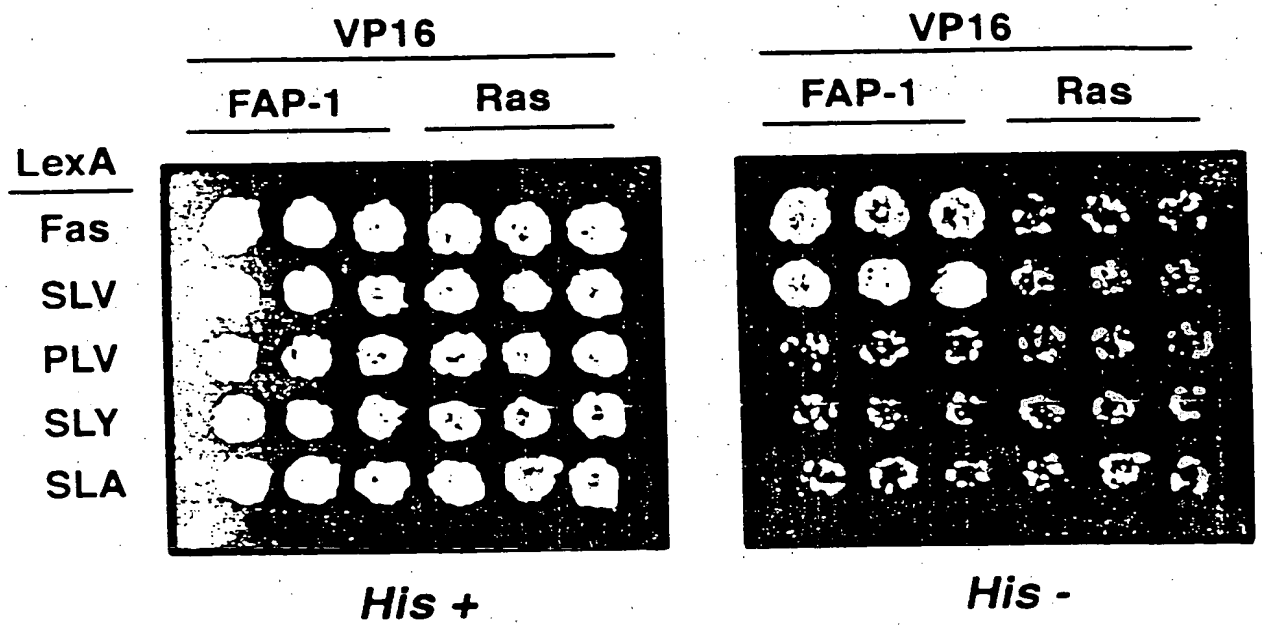


FIG. 4B

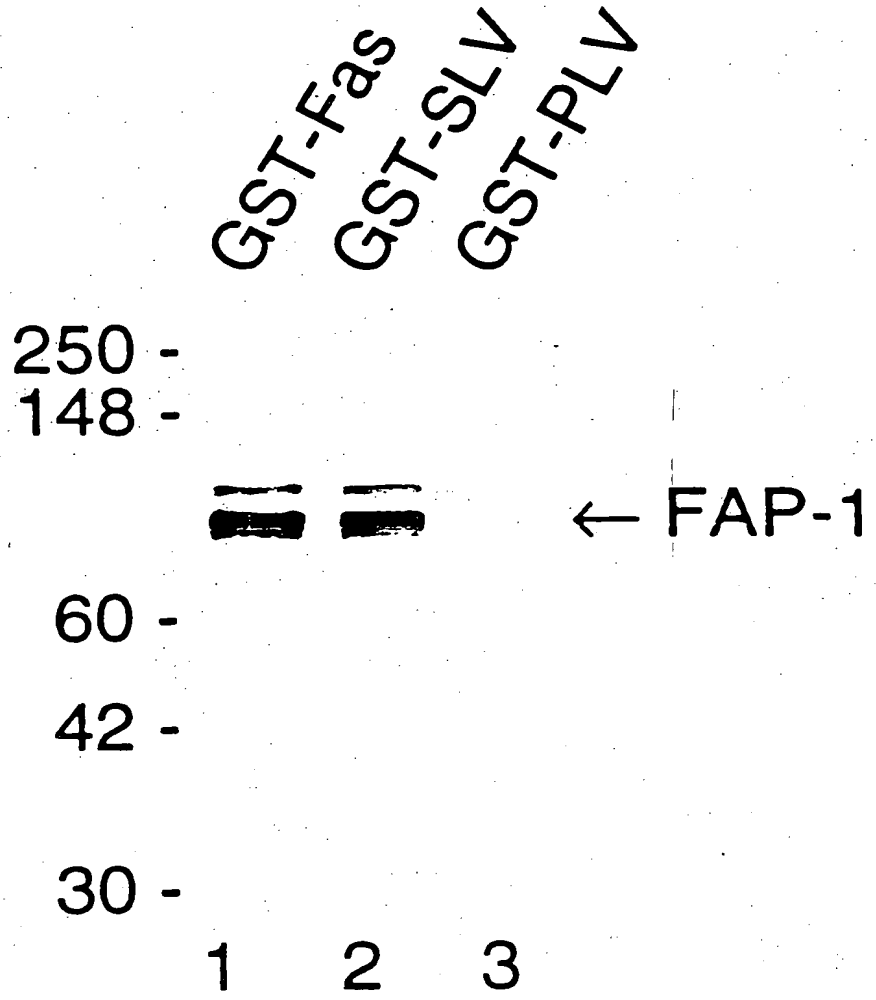


FIG. 4C

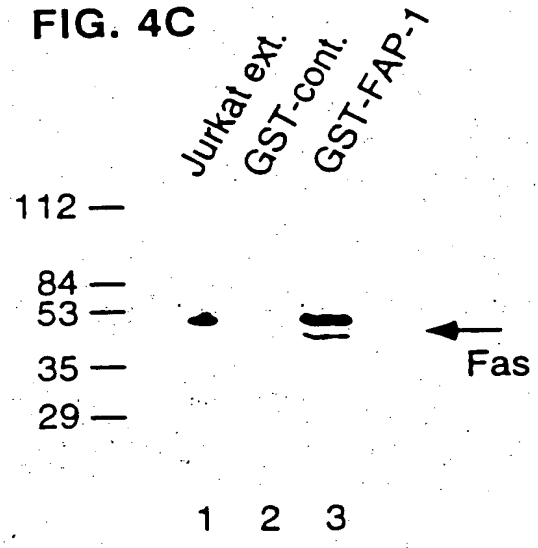
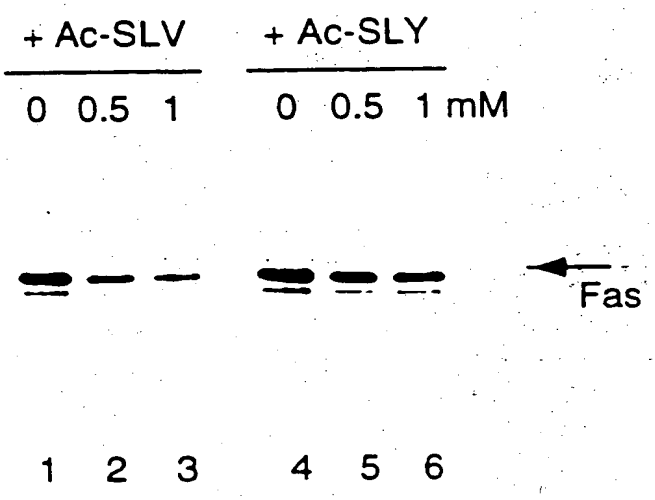

Jurkat ext.
GST-cont.
GST-FAP-1
112
84
53
35
29
Fas
1 2 3

FIG. 4D


+ Ac-SLV
+ Ac-SLY
0 0.5 1
0 0.5 1 mM
Fas
1 2 3 4 5 6

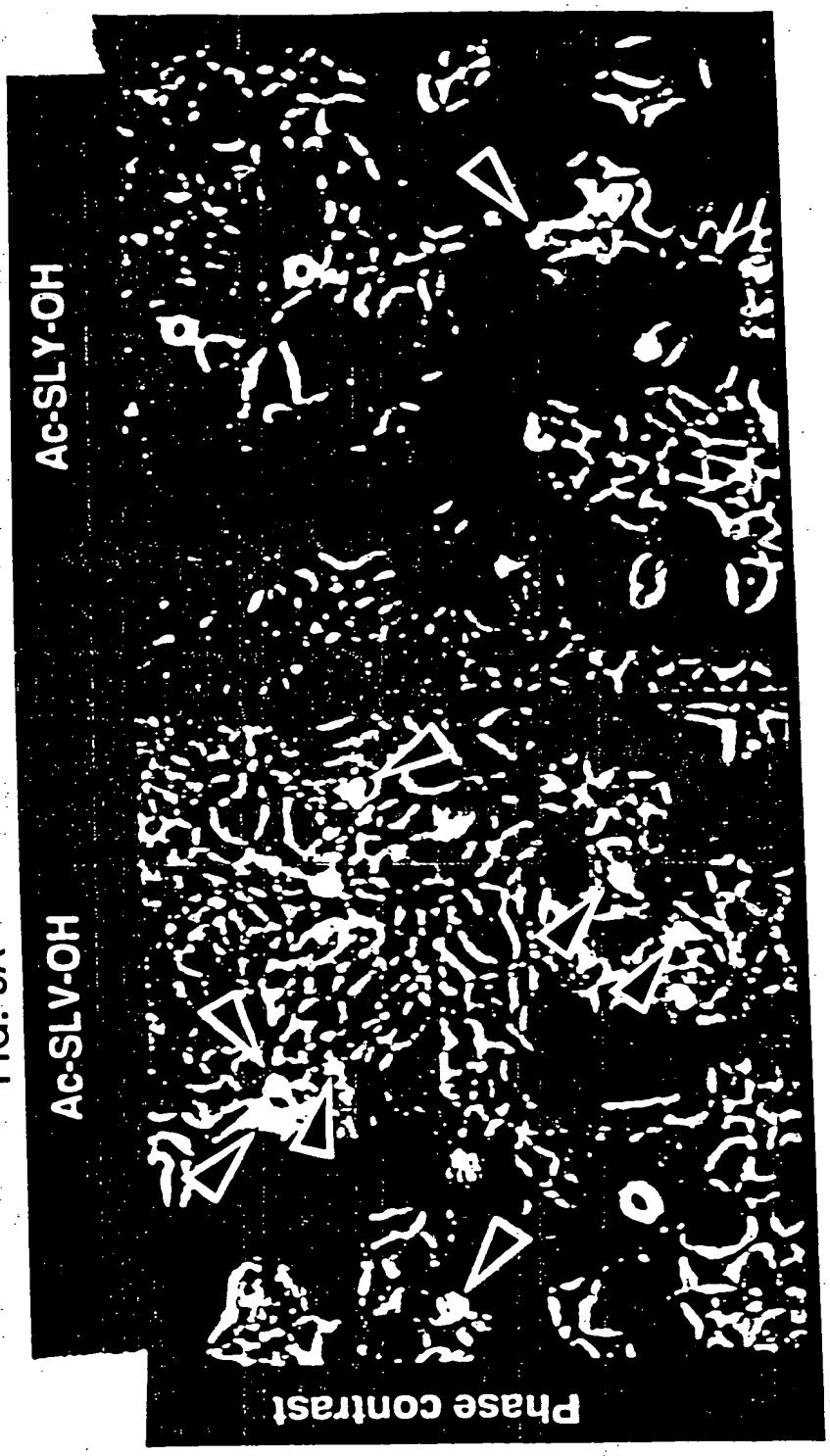


FIG. 5A

FIG. 5B

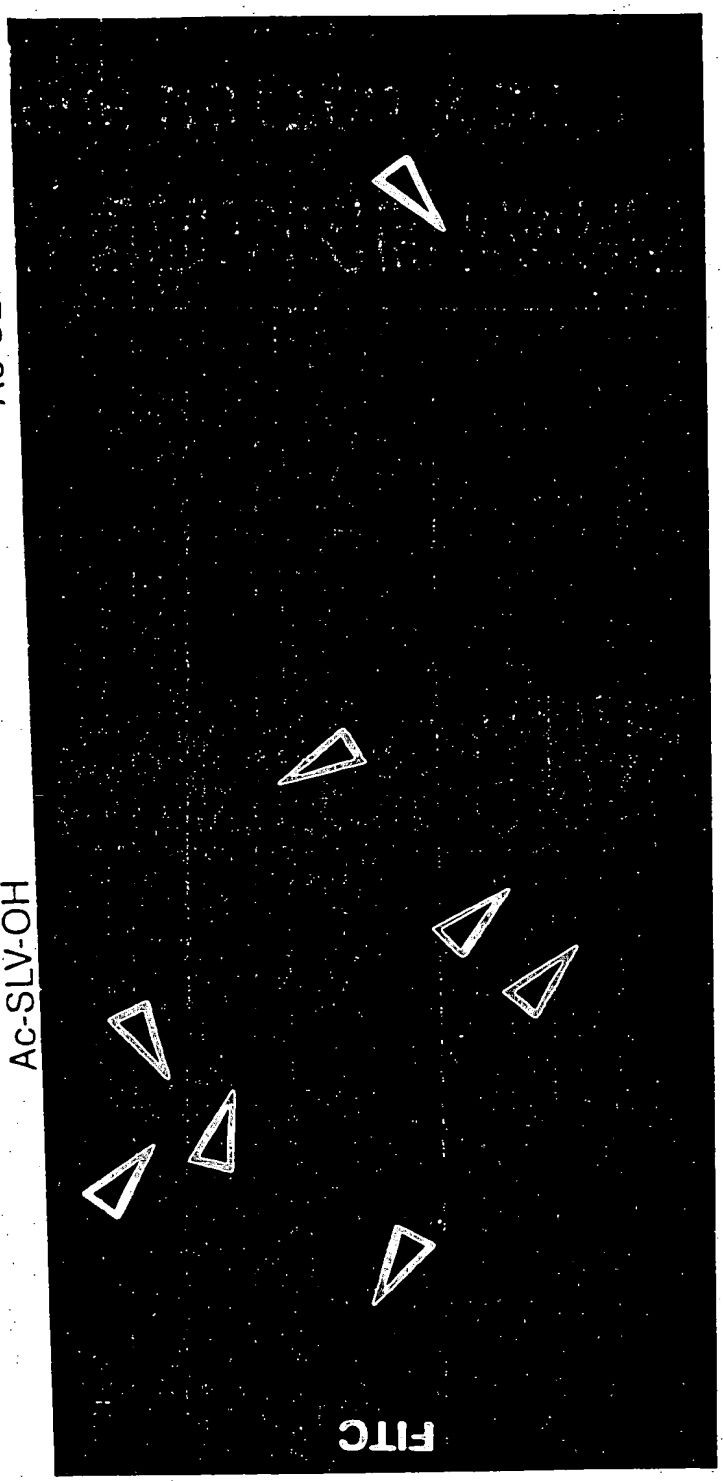


FIG. 5C
Ac-SLV-OH

FIG. 5D
Ac-SLY-OH

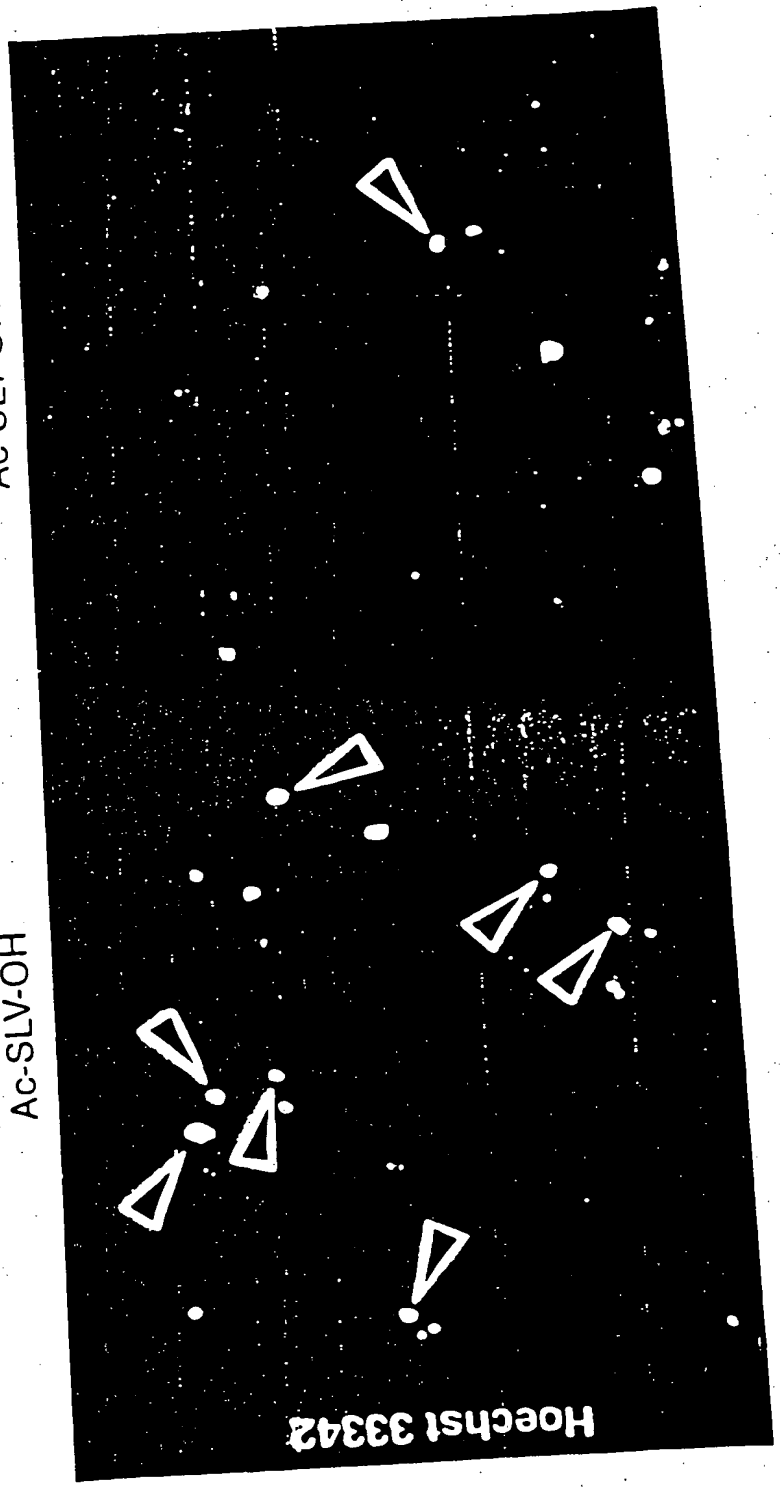


FIG. 5E
Ac-SLV-OH

FIG. 5F
Ac-SLY-OH

FIG. 6

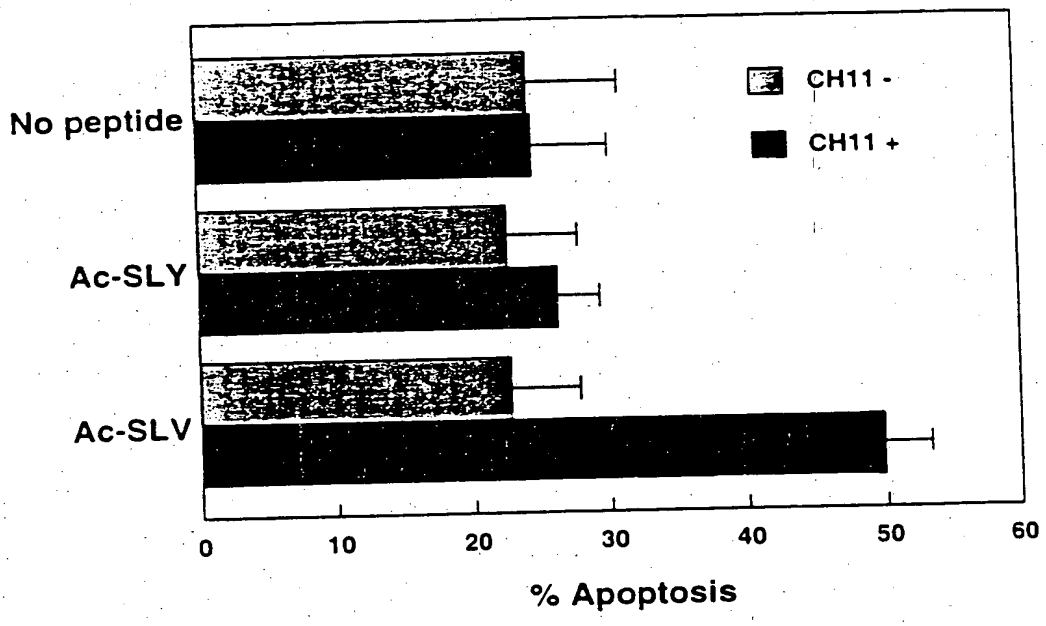


FIG. 7A

NGF Receptor

```
  1 mgagatgram dgprllllll lgvslggake acptglyths gecckacnlg egvaqpcgan
 61 qtvcepclds vtfsdvvsat epckpctecv glqsmsapcv eaddavcrca ygyyqdettg
121 rceacrvcea gsglvfscqd kqntvceecp dgtysdeanh vdpclpctvc edterqlrec
181 trwadaecee ipgrwitrst ppegsdstap stqepeappe qdliastvag vvttvmgssq
241 pvvtrgttdn lipvycsila avvvglvayi afkrwnsckq nkqgansrpv nqtpppegek
301 lhsdsgisvd sqslhdqqph tqtasgqalk gdgglysslp pakreevekl lngsagdtwr
361 hlagelgyqp ehidsfthea cpvrallasw atqdsatlda llaalrriqr adlveslcse
421 statspv
```


FIG. 7B

CD4 Receptor

```
  1 mnrgvpfrhl llvlqlallp aatqgkkvvl gkkgdtvelt ctasqkksiq fhwknsnqik
 61 ilgnqgsflt kgpsklndra dsrrslwdqg nfpliiknlk iedsdtyice vedqkeevql
121 lvfgltansd thllqgqslt ltlesppgss psvqcrsprg kniqggktls vsqlelqdsg
181 twtctvlqnq kkvefkidiv vlafqkassi vykkegeqve fsfplaftve kltgsgelww
241 qaerasssks witfdlknke vsvkrvtqdp klqmgkklpl hltlpqalpq yagsgnltla
301 leaktgklhq evnlvvmrat qlqknltcev wgptspklml slklenkeak vskrekavwv
361 lnpeagmwqc llsdsgqvll esnikvlptw stpvqpmali vlggvagll figlgiffcv
421 rcrhrrrqae rmsqikrlls ekktcqcphr fqktcspi
```

FIG. 7C

Species	C-terminal sequences of NGFR (p75)	Binding activity of FAP-1
Human	fSESTATSPV-COOH	+
Rat	fSESTATSPV-COOH	+
Chicken	fSESTATSPV-COOH	+

FIG. 7D

```
   1 mnsgvamkyg ndssaelsel hsaalaslkg divelnkrlq qtererdlle kklakaqceq
  61 shlmrehedv qerttlryee ritelhsvia elnkkidrlq gttireedey selrselsqs
 121 qhevnedsrs mdqdqtsvsi penqstmvta dmdncsdins elqrvitgle nvvcgrkkss
 181 cslsvaevdr hieqlttase hcdlaiktve eiegvlgrdl ypnlaeersr wekelaglre
 241 enesltamlc skeeelnrtk atmnaireer drlrrrvrel qtrlqsvqat gpsspgrlts
 301 tnrpinpstg elstssssnd ipiakiaerv klsktrsess ssdrpvlgse issigvsssv
 361 aehiahslqd csniqeifqt lyshgsaise skirefevet erlnsriehl ksqndlltit
 421 leecksnaer msmlvgkyes natalrlalq yseqcieaye lllalaeseq slilgqfraa
 481 gvgsspgdqs gdenitqmlk rahdcrktae naakallmkl dgscggafav agcsvqpwes
 541 lssnshtstt sstasscdte ftkedeqrlk dyiqqlkndr aavkltmlel esihidplsy
 601 dvkprgdsqr ldlenavlmq elmamkeema elkaqlylle kekkalelkl streaqeqay
 661 lvhiehlkse veeqkeqrmr slsstssgsk dkpgkecada aspalslael rttcsenela
 721 aeftnairre kklkarvqel vsalerltks seirhqqsae fvndlkrans nlvaayekak
 781 kkhqnklkkl esqmmamver hetqvrmlkq rialleeens rphtnetsl
```

FIG. 7E

```
  1 madvfpgnds tasqdvanrf arkgalrqkn vhevkdhkfi arffkqptfc shctdfiwgf
 61 gkqgfqcqvc cfvvhkrche fvtfscpgad kgpdtddprs khkfkihtyg sptfcdhcgs
121 llyglihqgm kcdtcdmnvh kqcvinvpsl cgmdhtekrg riylkaevad eklhvtvrda
181 knlipmdpng lsdpyvklkl ipdpkneskq ktktirstln pqwnesftfk lkpsdkdrrl
241 sveiwdwdrt trndfmgsls fgvselmkmp asgwyklinq eegeyynvpi pegdeegnme
301 lrqkfekakl gpagnkvisp sedrkqpsnn ldrvkltdfn flmvlgkgsf gkvmladrkg
361 teelyaikil kkdvviqddd vectmvekrv lalldkppfl tqlhscfqtv drlyfvmeyv
421 nggdlmyhiq qvgkfkepqa vfyaaeisig lfflhkrgii yrdlkldnvm ldseghikia
481 dfgmckehmm dgvttrtfcg tpdyiapeii ayqpygksvd wwaygvllye mlagqppfdg
541 ededelfqsi mehnvsypks lskeavsick glmtkhpakr lgcgpegerd vrehaffrri
601 dweklenrei qppfkpkvcg kgaenfdkff trgqpvltpp dqlvianidq sdfegfsyvn
661 pqfvhpilqs ay
```

FIG. 7F

```
  1 mdilceentc lsstcnslmq lnddtrlysn dfnsgeantc dafnwtvdse nrtnlscegc
 61 lspsclsllh lqeknwsall tavviiltia gnilvimavs lekklqnatn yflmslaiad
121 mllgflvmpv smltilygyr wplpsklcav wiyldvlfst asimhlcais ldryvaiqnp
181 ihhsrfnsrt kaflkiiavw tisvgismpi pvfglqddsk vfkegsclla ddnfvligsf
241 vsffipltim vityfltiks lqkeatlcvs dlgtraklas fsflpqsgls sekifqrsih
301 repgsytgrr tmqsisneqk ackvlgivff lfvvmwcpff itnimavick escnedviga
361 llnvfvwigy lssavnplvy tlfnktyrsa fsryiqcqyk enkkplqlil vntipalayk
421 ssqlqmgqkk nskqdakttd ndcsmvalgk qhseeaskdn sdgvnekv**sc y**
```

FIG. 7G

```
  1 malsyrvsel qstipehilq stfvhvissn wsglqtesip eemkqiveeq gnklhwaall
 61 ilmviiptig gntlvilavs lekklqyatn yflmslavad llvglfvmpi alltimfeam
121 wplplvlcpa wlfldvlfst asimhlcais vdryiaikkp iqanqynsra tafikitvvw
181 lisigiaipv pikgietdvd npnnitcvlt kerfgdfmlf gslaafftpl aimivtyflt
241 ihalqkkayl vkmkppqrlt witvstvfqr detpcsspek vamldgsrkd kalpnsgdet
301 lmrrtstigk ksvqtisneq raskvlgivf flfllmwcpf fitnitlvlc dscnqttlqm
361 lleifvwigy vssgvnplvy tlfnktfrda fgryitcnyr atksvktlrk rsskiyfrnp
421 maenskffkk hgirnginpa myqspmrlrs stiqssiil idtlllltene gdkteeqvsy
481 y
```

FIG. 7H

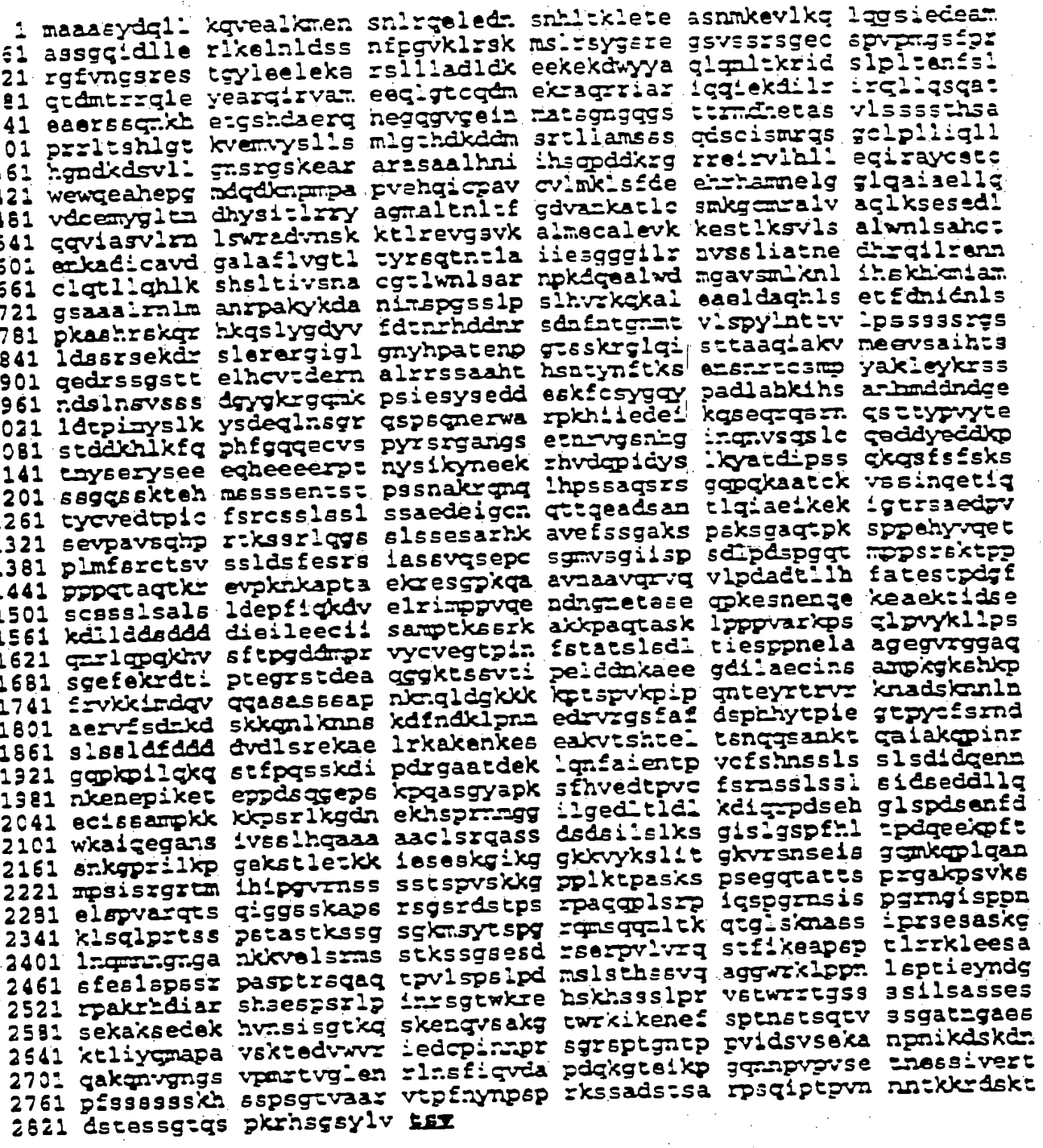

1 maaasydql1 kqvealkmen snlrqeledr snhltklete asnmkevlkq lqgsiedeam
61 assgqidlle rikelnldss nfpgvklrsk msltsygsre gsvssrsgec spvpmgsfpr
121 rgfvngsres tgyleeleke rsllladldk eekekdwyya qlqnltkrid slpltenfsl
181 qtdmtrrqle yearqirvam eeqlgtcqdm ekraqrriar iqqiekdilr irqliqsqat
241 eaersaqmkh etgshdaerq negqgvgein ratsgngqgs ttrmdhetas vlsssstnsa
301 prrltshlgt kvemvyslls mlgthdkddm srtliamsss qdscismrgs gelplliqll
361 hgndkdsvli gnsrgskear arasaalhni ihsqpddkrg rreirvihli eqirayceta
421 wewqeahepg ndqdknpmpa pvehqicpav cvlmklsfde ehrhamnelg glqaiaellq
481 vdcemyglta dhysitlrry agmaltnltf gdvankatlc smkgcmralv aqlksesedl
541 cqviasvlrn lswradvnsk ktlrevgsvk almecalevk kestlksvls alwnlsahct
601 emkadicavd galaflvgtl tyrsqtntla iiesgggilr nvssliatne dhrqilrenn
661 clqtliqhlk shsltivsna cgtlwnlsar npkdqealwd mgavsmlknl ihskhimiam
721 gsaaalrnlm anrpakykda nimspgsslp slhvrkqkal eaeldaqhls etfdniénls
781 pkashrskqr hkqslygdyv fdtnrhddnr sdnfntgnmt vlspylnttv lpsssssrqs
841 ldssrsekdr slerergigl gnyhpatenp gtsskrglqi sttaaqiakv neevsaihts
901 qedrssgstt elhcvtdern alrrssaaht hsntynftks emsnrtcsmp yakleykrss
961 ndslnsvsss dqygkrgqnk psiesysedd eskfcsygqy padlahkihs anhmddndge
1021 ldtpimysik ysdeqlnsgr qspsqnerwa rpkhiiedei kqseqrqsrn qsttypvyte
1081 stddkhlkfq phfgqqecvs pyrsrgangs etnrvgsnng inqnvsqsic qeddyeddkp
1141 tnyserysee eqheeeerpt nysikyneek rhvdqpidys ikyatdipss qkqsfsfsks
1201 ssgqsskteh mssssentst pssnakrqnq lhpssaqsrs gqpqkaatck vssinqetiq
1261 tycvedtpic fsrcsslssi ssaedeigcn qttqeadsan tlqiaeikek igtrsaedgv
1321 sevpavsqhp rtkssrlqgs slssesarhk avefssgaks psksgaqtpk sppehyvqet
1381 plmfsrctsv ssldsfesrs iassvqsepc sgmvsgiisp sdipdspgqt mppsrsktpp
1441 pppqtaqtkr evpknkapta ekresgpkqa avnaavqrvq vlpdadtilh fatestpdgf
1501 scsssisals ldepfiqkdv elrimppvqe ndngmetese qpkesnenqe keaektidse
1561 kdilddsddd dieileecii samptkssrk akkpaqtask lpppvarkps qlpvyklips
1621 qmrlqpqkhv sftpgddmpr vycvegtpin fstatslsdi tiesppnela agegvrggaq
1681 sgefekrdti ptegrstdea qggktssvti peiddnkaee gdilaecins ampkgkshkp
1741 frvkkindqv qqasasseap nkmqldgkkk kptspvkpip qnteyrtrvr knadskmnln
1801 aervfsdnkd skkqnlknns kdfndklpnn edrvrgsfaf dspthytpie gtpyefsmnd
1861 slssldfddd dvdlsrekae lrkakenkes eakvtshtel tsnqqsankt qaiakqpinr
1921 gqpkpilqkq stfpqsskdi pdrgaatdek lqnfaientp vcfshnssls slsdidqenn
1981 nkenepiket eppdsqgeps kpqasgyapk sfhvedtpvc fsrnsslssi eidseddllq
2041 ecissampkk kkpsrlkgdn ekhsprrngg ilgedltldi kdiqrpdseh glspdsenfd
2101 wkaiqegans ivsslhqaaa aaclsrqass dsdsiislks gislgspfhl tpdqeekpft
2161 snkqprilkp gekstletkk ieseskgikg gkkvykslit gkvrsnseis gqmkqplqan
2221 mpsisrgrtm ihipgvrnss sstspvskkg pplktpasks psegqtatts prgakpsvks
2281 elspvarqts qiggsskaps rsgsrdstps rpaqqplsrp iqspgrnsis pgrngisppn
2341 klsqlprtss pstastkssg sgkmsytspg rqmsqqnltk qtgisknass iprsesaskg
2401 lnqmnngnga nkkvelsrns stkssgsesd rserpvlvrq stfikeapsp tlrrkleesa
2461 sfeslspssr pasptrsqaq tpvlspslpd mslsthssvq aggwrklppn lsptieyndg
2521 rpakrhdiar shsespsrlp innsgtwkre hskhssslpr vstwrrtgss ssilsasses
2581 sekaksedek hvnsisgtkq skenqvsakg twrkikenef sptnstsqtv ssgatngaes
2641 ktliyqmapa vsktedvwvr iedqpinnpr sgrsptgntp pvidsvsska npnikdskdn
2701 qakqnvgngs vpmrtvglen rlnsfiqvda pdqkgteikp gqnnpvpvse tnessivert
2761 pfsssssskh sspsgtvaar vtpfnynpsp rkssadstsa rpsqiptpvn nntkkrdskt
2821 dstessgtqs pkrhsgsylv tsx

FIG. 8

p75NGFR

(Low-affinity nerve growth factor receptor)

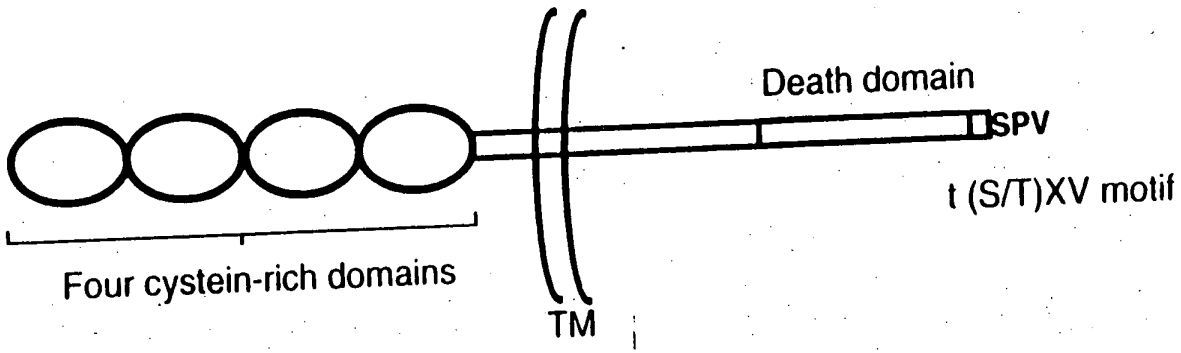


FIG. 9

	C-terminal amino acid sequence
Fas	NEIQSLV
p75NGFR	STATSPV

t (S/T)-X-V – COOH ⟷ PDZ domain

interaction

FIG. 10

In vitro interaction of ^{35}S-labeled FAP-1 with various receptors

— FAP-1 binds to the cytoplasmic region of p75NGFR. —

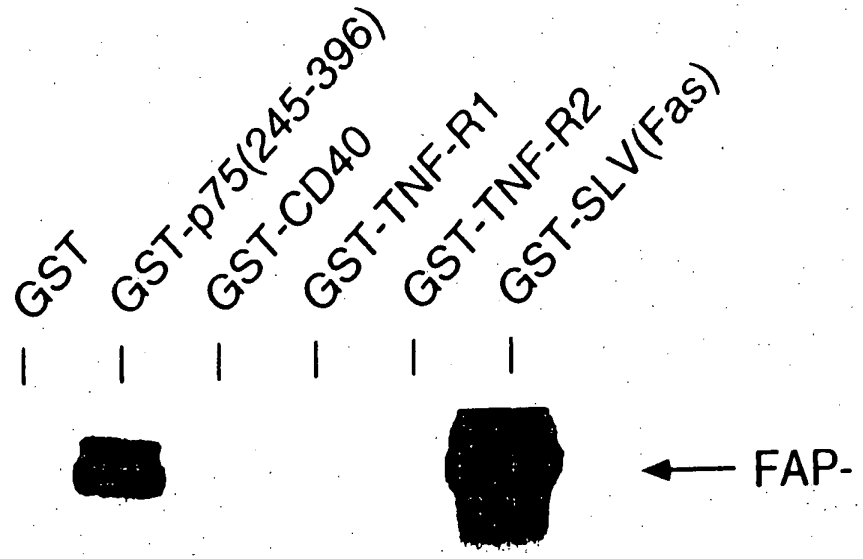
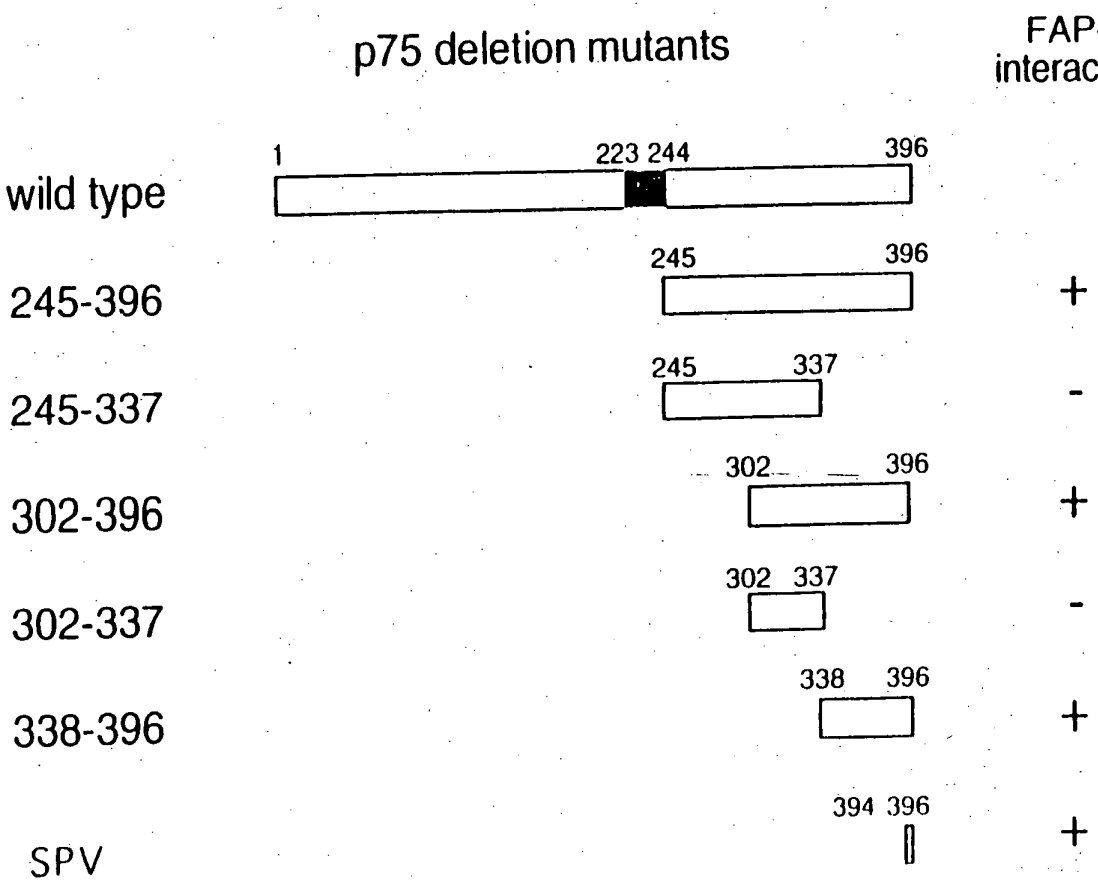


FIG. 11A

FAP-1 binds to C-terminal three amino acids SPV of p75NGFR.



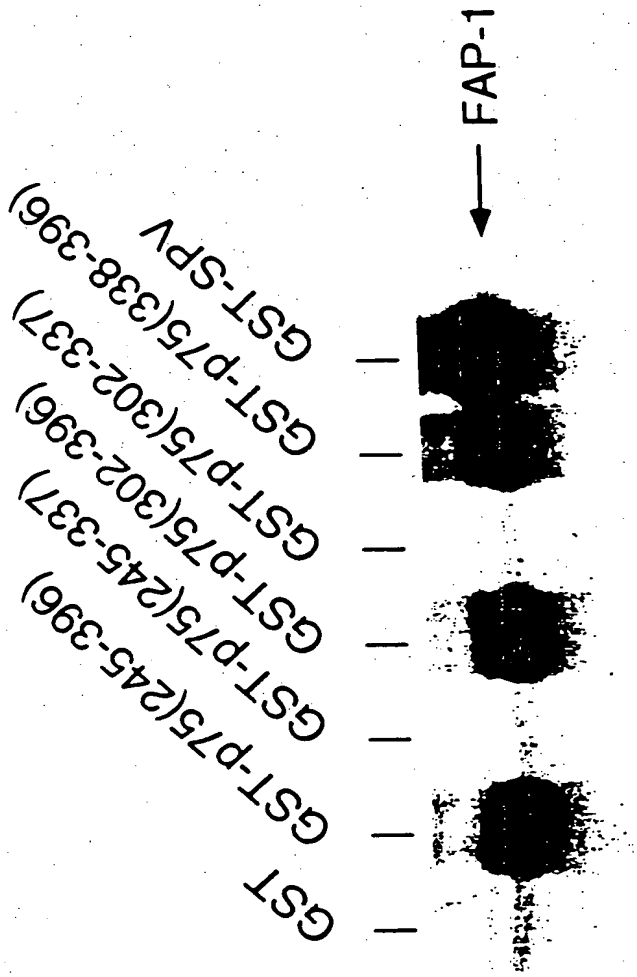

FAP-1
GST-SPV
GST-p75(338-396)
GST-p75(302-337)
GST-p75(302-396)
GST-p75(245-337)
GST-p75(245-396)
GST

FIG. 11B

FIG. 12

FAP-1 binds to p75NGFR C-terminal cytoplasmic region in yeast.

	VP16-FAP-1	VP16-cRaf
LexA-p75NGFR(338-396)	+	-
LexA-p75NGFR(365-396)	+	-
LexA-Fas	++	-
LexA-Ras^{V12}	-	+
LexA-Lamin	-	-

FIG. 13A

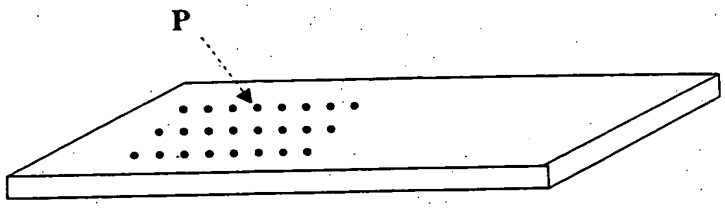


FIG. 13B

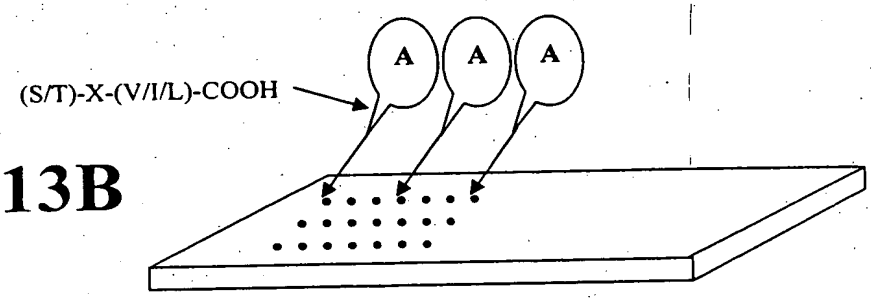


FIG. 13C

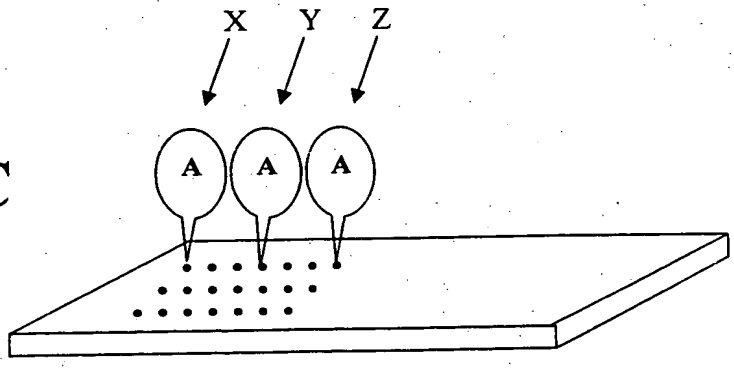


FIG. 14A

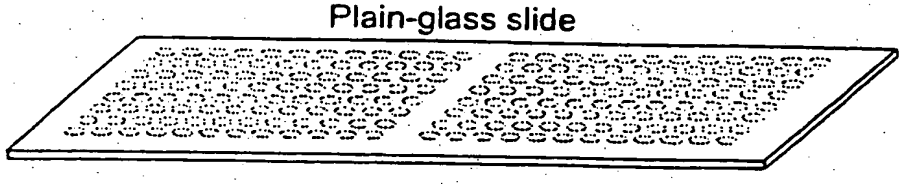


FIG. 14B

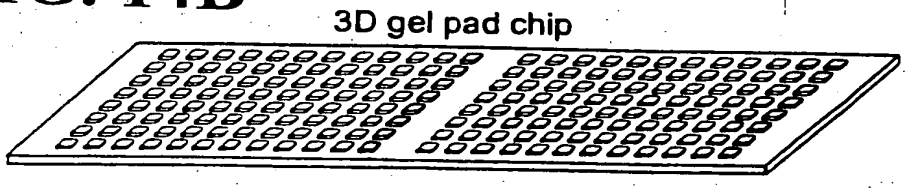


FIG. 14C